UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

October 25, 2021

Mr. Roberto Puga, P.G.
Principal of Project Navigator Ltd, solely in its capacity as Trustee for
HOVENSA Environmental Response Trust
1 Estate Hope
Christiansted, Virgin Islands 00820

Ms. Carey Guilbeau
HOVENSA Environmental Response Trust
Trust Representative & Technical Program Manager
PMB 245
6002 Diamond Ruby, Suite 3
Christiansted, VI 00820-5226

Re: Review of the First Semiannual 2021 Corrective Action Status Report, dated August 30, 2021
Former HOVENSA, L.L.C. Site, St. Croix, U.S. Virgin Islands, EPA
RCRA I.D. No: VID980536080

Dear Mr. Puga and Ms. Guilbeau:

The U.S. Environmental Protection Agency (EPA) has reviewed the First Semiannual 2021 Corrective Action Status (CAS) Report, dated August 30, 2021, for the former HOVENSA LLC facility, located in St. Croix, US Virgin Islands. This CAS details RCRA corrective action activities conducted at the facility during the first half (January through June) of 2021. HOVENSA ERT (ERT) is continuing to implement the monitoring and corrective action pursuant under the Part B Permit and the 2009 Draft Corrective Measures Implementation (CMI) Workplan. Enclosed, please find our comments.

Should you have any questions or would like to discuss this matter further, I can be reached at 212-637-3703, or via email at vargas.ricardito@epa.gov.

Sincerely,

Ricardito Vargas
Project Manager
EPA Region 2
Land and Redevelopment Programs Branch
New York, NY 10007-1866

Enclosure

cc: Austin Callwood, Director, VIDPNR-DEP via email
Brad Martin, Toeroek via email

REVIEW OF THE
CORRECTIVE ACTION STATUS REPORT
JANUARY TO JUNE 2021
HOVENSA ENVIRONMENTAL RESPONSE TRUST
DATED AUGUST 30, 2021

I. General Comments

General Comment 1: The *Corrective Action Status Report - January to June 2021, Hovensa Environmental Response Trust (ERT)*, dated August 30, 2021 (CAS Report) includes references to how a reconditioned vacuuming truck will be used for phase separated hydrocarbon (PSH) removal efforts at the site. It is suggested that some method be used to estimate the amount of PSH, not just total fluids removed during future vacuum truck removal as well as absorbent boom PSH removal efforts. This data may need to be added to the estimated total product removal volumes for comparison purposes should they be needed during final remedy evaluation purposes. Please revise the operations, maintenance, and monitoring at the site to include tracking of PSH volumes from vacuum truck and absorbent boom removal efforts.

General Comment 2: A detailed schedule is needed in the CAS Report for operations, maintenance, and monitoring activities. The schedule should be in a table or figure format, listing the corrective actions needed to allow for review in a concise and timely fashion. Please revise the CAS Report to include this schedule

General Comment 3: A significant increase in PSH estimated beneath the East Refinery and Saint Croix Petrochemical Company (SCPC)/West fence locations are discussed throughout the body of the CAS Report (See Appendix B, Table 1); however, the reason for the observed increases are not well described in the report. It is suspected that the absence of vacuum truck removal during this last monitoring period may have contributed to these observed changes at the site. More careful tracking of the efficiency and location and timing of vacuum truck efforts on observed PSH distribution are needed during the next monitoring period to define the impacts of these efforts more fully on future remedial efforts at the site. Please revise the next CAS Report to provide this information.

Also, Appendix B does not adequately describe the method being used to model PSH volumes at the site. Incomplete references and descriptions of the process being used to model these results are needed and should be provided in the next CAS Report for the site. Further, the potential for new releases and problems with the model used to predict PSH are also discussed in Section 2.2, Page 13, second paragraph, presumably because of site activities or model calibration issues. More information concerning any potential new releases or problems with PSH model calibration are needed to assure future estimates and product distributions will be comparable. Please update the next CAS Report and Appendix B to provide this information.

General Comment 4: Additional forensic data is pending for the identification of potential new source areas and should be discussed in the next monitoring period CAS Report. The source characteristics data are generally depicted on some site figures such as Figures 2.1, 2.17, 2.19, 3.5, 3.7, 6.4 and others indicating where PSH fingerprints indicate pre-existing and new occurrences. The results of the forensic analyses need to be more clearly summarized for various source areas and tied to relevant maps so the nature and definition of source areas can be more clearly defined and understood in the context of remediation activities at the site. Please include this information in the next CAS Report.

I. Specific Comments

Specific Comment 1: Section 2.1, Page 9, 5th paragraph. In this paragraph it is noted that the ERT vacuum truck was not operated for the reporting period. A new reconditioned vacuum truck has been purchased and vacuuming of PSH commenced on June 29th, 2021. It was noted in this paragraph that approximately 18 barrels of oil and water were collected from five wells. Based on a review of Table 2.5, it is unclear how much fluid was removed from each well and what percentage of oil versus water was collected. In the upcoming CAS Report, please indicate the basis for how the revised vacuuming events will be conducted. An attempt should be made to keep better records of fluid recoveries and percent oil as opposed to water collected from each well in the program to help in optimizing future recovery efforts. On Page 13 in Section 2.2 in the 3rd paragraph it is noted that potential contributions from smear zones were to be evaluated through vacuuming truck removal efforts. Please provide details concerning how this evaluation will be performed moving forward.

Specific Comment 2: Section 2.6.3, Page 30, Well 188, 581 and 583, Tank Field No. 17. In this section it is noted that these wells had been routinely vacuumed, but in the absence of an operating vacuum truck a solar sipper was moved from one well to the other over the monitoring period. Solar sippers are generally a better alternative to periodic vacuuming events. It is unclear how and why vacuuming versus solar sippers are being considered for use at the site. A more comprehensive plan for the deployment of solar sippers as opposed to vacuuming events is needed as a part of any final remedy. Please revise the upcoming CAS Report to clarify why and when solar sippers will be abandoned or selected for use as opposed to vacuuming events and how exactly will it be determined if vacuum truck treatment as opposed to solar sippers is the correct option for use.

Specific Comment 3: Tables 1.1, 1.2, 6.1 and 6.2. Please revise the CAS Report to include the approximate schedule for corrective actions in a table or figure format.

Specific Comment 4: Figures. The symbol presumably indicating where recovery wells are located on Figure 1.3 are inconsistent with the symbol shown on the legend for the figure. Please make the figure and legend consistent. The same change should be made for all other similar figures; for example, Figure 2.1 and others.

Specific Comment 5: Appendix B. This appendix provides a very brief discussion of what model was used to estimate the volume of free hydrocarbon present on the site during the June 2021 gauging event. Reference is made to the ARMOS model and two publications by ES&T in 1996 and 2000. The name of the model and version is not provided, and the references provided could not be located during our review process. The references cited are supposed to contain how the model was developed and what parameters were used as input to the model. Please provide sufficient information to verify the reliability of the model and the inputs used to estimate PSH volumes at the site.